SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name | Examiner # : | Date
Art Unit | Phone Number 30 | Serial Number
Mail Box and Bldg Room Location | Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention:

Inventors (please provide full names):

Earliest Priority Filing Date:

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Point of Contact:

****

STAFF USE ONLY | Type of Search | Vendors and cost where applicable

STN

=> fil regi
FILE 'REGISTRY' ENTERED AT 15:[illegible] ON [illegible]
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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STRUCTURE FILE UPDATES: [illegible]
DICTIONARY FILE UPDATES: [illegible]

TSCA INFORMATION NOW CURRENT THROUGH July [illegible], 2001

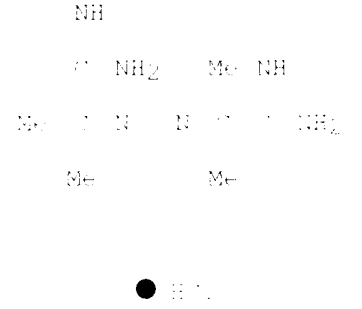
Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES
for more information. See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
http://www.cas.org/ONLINE/STN/STNOTE/[illegible].pdf

=> d ide can tot

L61 ANSWER 1 OF 18 REGISTRY COPYRIGHT 2001 ACS
RN 149688-98-2 REGISTRY
CN Propanimidamide, 2,2'-azobis[2-methyl-, monohydrochloride (9CI) (CA INDEX NAME)
MF **C8 H18 N6 . Cl H**
SR CA
LC STN Files: BEILSTEIN*, CA, CAPLUS, USPATFULL
(*File contains numerically searchable property data)
CRN (13217-66-8)



Possible Contact:

7

MF C H4 O . C H Cl3 . H2 O
SR MEDLINE
NR CA
LC STN Files: ADISINSIGHT, CA, CAPLUS, CASREACT, MEDLINE, TOXCENTER

      PM 1

      CRN 7732-18-5
      CMF H2 O

H_2O

      PM 2

      CRN 67-66-3
      CMF C H Cl3

Cl

Cl CH Cl

      PM 3

      CRN 67-56-1
      CMF C H4 O

H_3C OH

                4 REFERENCES IN FILE CA (1967 TO DATE)
                4 REFERENCES IN FILE CAPLUS (1967 TO DATE)

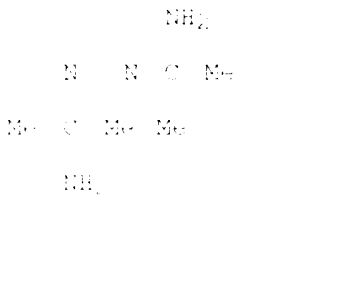
REFERENCE 1: 119:147544

REFERENCE 2: 119:70548

REFERENCE 3: 118:10

REFERENCE 4: 117:

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS on STN
RN 88434-89-8 REGISTRY
CN 2-Propanamine, 2,2'-azobis-, dihydrochloride (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2,2'-Azobis(2-aminopropane) dihydrochloride
FS STEREOSEARCH
MF C6 H16 N4 . 2 Cl H
LC STN Files: CA, CAPLUS, CASREACT, MEDLINE, TOXCENTER



●2 HCl

10 REFERENCES IN FILE CA (1967 - PRESENT)
10 REFERENCES IN FILE CAPLUS (1967 - PRESENT)

REFERENCE 1: 135:344911

REFERENCE 2: 131:334,7

REFERENCE 3: 130:5514

REFERENCE 4: 128:59144

REFERENCE 5: 128:53714

REFERENCE 6: 129:82088

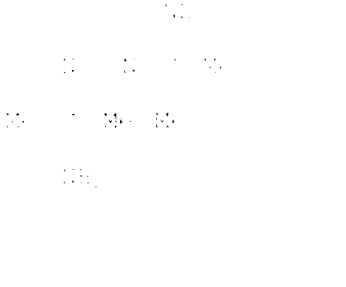
REFERENCE 7: 128:226212

REFERENCE 8: 127:221134

REFERENCE 9: 107:200585

REFERENCE 10: 104:112,59

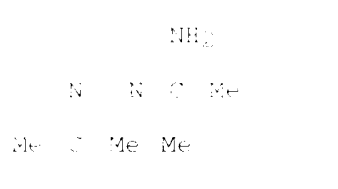
L#1 ANSWER 4 OF 10 REGISTRY COPYRIGHT 2004 ACS
AN 1 152-78-2 REGISTRY
CN 2-Propanamine, 2,2'-azobis-, hydrochloride (9CI) (CA INDEX NAME)
MF **C6 H16 N4 . x Cl H**
LC STN Files: CA, CAPLUS
HCI 4179-11-



REFERENCE 4: [illegible]

REFERENCE [illegible]

L+1 ANSWER [illegible] REGISTRY [illegible]
RN 4155c-11-0 REGISTRY
CN 2-Propanamine, 2,2'-azobis- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN **2,2'-Azobis(2-aminopropane)**
FS 3D CONCORD
MF C6 H16 N4
CI COM
LC STN Files: BIOSIS, CA, CAPLUS, TOXCENTER, TOXLIT, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

8 REFERENCES IN FILE 'A [illegible]
8 REFERENCES IN FILE 'APLUS [illegible]

REFERENCE 1: 135:94960

REFERENCE 2: 134:57011

REFERENCE 3: 124:173953

REFERENCE 4: 118:2823

REFERENCE 5: 115:300507

REFERENCE [illegible]

[illegible]

[illegible]

L+1 ANSWER [illegible] REGISTRY [illegible]
RN **39307-32-9** REGISTRY
CN Methanol, mixt. with trichloromethane [illegible] (CA INDEX NAME
OTHER CA INDEX NAMES:
CN Methane, trichloro-, mixt. [illegible]
OTHER NAMES:
CN [illegible]
MF C H4 O . C H Cl3

CM 2

CRN 67-56-1
CMF C H4 O

27 REFERENCES IN FILE CA [illegible]

REFERENCE 1: [illegible]

REFERENCE 2: 135:31181

REFERENCE 3: 130:92477

REFERENCE 4: 126:248996

REFERENCE 5: 126:183500

REFERENCE 6: 126:88341

REFERENCE 7: 123:264117

REFERENCE 8: 122:209653

REFERENCE 9: [illegible]

REFERENCE 10: [illegible]

L81 ANSWER 7 OF 18 REGISTRY COPYRIGHT [illegible]
RN 25327-62-2 REGISTRY
CN Propionamidine, 2,2'-azobis[2-methyl-, [illegible]
OTHER NAMES:
[illegible]
FS C8 H18 N6 . x H I
[illegible]

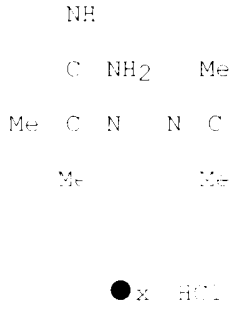
CM 1

CRN [illegible]

[illegible]

[illegible]

OTHER CA INDEX NAMES:
CN Propionamidine, 2,2'-azobis[2-methyl-, hydrochloride (1:2), (T-4)-
RR 2997-92-4
MF **C8 H18 N6 . x Cl H**
CI COM
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMLIST,
IFICDB, IFIPAT, IFIUDB, TOXCENTER, TOXLIT, USPATFULL
(*File contains numerically searchable property data
Other Sources: MDDR**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
[illegible]



40 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
40 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 114:63590

REFERENCE 2: 114:44053

REFERENCE 3: 114:[illegible]

REFERENCE 4: [illegible]

REFERENCE 5: [illegible]

REFERENCE 6: [illegible]

REFERENCE 7: 111:1[illegible]

REFERENCE 8: 110:1[illegible]

REFERENCE 9: [illegible]

[illegible]

FS 3D CONCORD
MF C9 H16 N2
CI COM
LC STN Files: AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CANCERLIT, CAOLD, CASREACT, CHEMCATS, CHEMLIST, EMBASE, IFICDB, IFIPAT, IFIUDB, MEDLINE, NIOSHTIC, PIRA, PROMT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

NH

C NH_2 Me NH

Me C N N C C NH_2

Me Me

PROPERTY DATA AVAILABLE IN THE 'RN' FORMAT

58 REFERENCES IN FILE CA (1967 -) ARE IN CAOLD
6 REFERENCES TO NON-SUBSTANCE (MODIFIED) IN FILE CA
46 REFERENCES IN FILE CAOLD (1967 -) ARE IN CA
2 REFERENCES IN FILE CA ARE IN CAOLD

REFERENCE 1: 135:221407

REFERENCE 2: 135:106569

REFERENCE 3: 135:1420

REFERENCE 4: 134:372149

REFERENCE 5: 134:363592

REFERENCE 6: 134:208204

REFERENCE 7: 134:5187

REFERENCE 8: 133:297432

REFERENCE 9: 133:274014

REFERENCE 10: 133:4814

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS on STN
RN 9041-08-1 REGISTRY
CN Heparin, sodium salt (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN Alta H1-1
CN Alta H1-2
CN Alta H1-3
CN Alta H1-4

CN Heparin sodium
CN Inhe-Hep
CN Kabi 2165
CN LMW 1
CN Liston 1
CN Liquaemin sodium
CN Liquemin
CN Logiparin
CN Lovenox
CN Minolteparin sodium
CN Normiflo
CN OP 2000
CN Parnaparin sodium
CN PK 10162
CN Pularin
CN Reviparin sodium
CN RO 11
CN Rp 54563
CN Sodium acid heparin
CN Sodium heparin
CN Sodium heparinate
CN Tinzaparin sodium
CN WY 90493RD
DR 12656-11-0, 101921-26-0, 102785-31-9
MF Unspecified
CI PMS, COM, MAN
PCT Manual registration, Polyester, Polyester formed
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS,
      BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CBNB, CHEMCATS, CHEMLIST, CIN,
      CSCHEM, DDFU, DETHERM*, DIOGENES, DRUGU, DSL**, EMBAL, IFICDB, IFIPAT, IFIUDB, IMSDRUGCONF,
      EMBASE, IFICDB, IFIPAT, IFIUDB, IMSDRUGNEWS, MEDLINE, MRCK*, NTIS, PASCAL,
      PHAR, PHARMASEARCH, PROMT, RTECS*, TOXCENTER, TULSA, USPATFULL
        (*File contains numerically searchable property data)
    Other Sources: DSL**, TSCA**, WHO
        (**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
            943 REFERENCES IN FILE CA (1967 TO DATE)
              1 REFERENCES TO NON-ELECTRONIC DERIVATIVES IN FILE CA
            946 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: [illegible]

REFERENCE 2: [illegible]

REFERENCE 3: [illegible]

REFERENCE 4: [illegible]

REFERENCE 5: [illegible]

REFERENCE 6: [illegible]

REFERENCE 7: [illegible]

[illegible]

[illegible]

CN Bemiparin
CN Certoparin
CN Clexane
CN Dalteparin
CN Enoxaparin
CN Fluxum
CN FR 860
CN Fragmin A
CN Fragmin B
CN Fraxiparin
CN Heparin sulfate
CN Heparinic acid
CN Kabi 2165
CN Minihep
CN Novoheparin
CN PK 10169
CN PK 10479
CN Rabyrin
CN Reviparin
CN Sandoparin
CN Sublingula
CN Vetren
CN Vitrum AB
DR 9075-96-1, 11078-24-3, 11129-39-8, 104521-67-1, 57824-78-5, 91449-76-1
MF Unspecified
CI PMS, COM, MAN
PCT Manual registration, Polyester, Polyester formed
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CENB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DIOGENES, DRUGNL, DRUGPAT, EPFULL, ESTTIDATEN, EMBASE, HSDB*, IFICDB, IFIPAT, IFUDB, IPA, MEDLINE, MRCK*, MSDS-OH, NAPRALERT, NIOSHTIC, PHAR, PHARMASEARCH, PIRA, PJNMT, RTECS*, TOXCENTER, TOXLIT, USAN, USPATFULL
      (*File contains numerically searchable property data)
    Other Sources: DSL**, EINECS**, WHO
      (**Enter CHEMLIST File for up-to-date regulatory information)

[illegible]

[illegible]

[illegible]

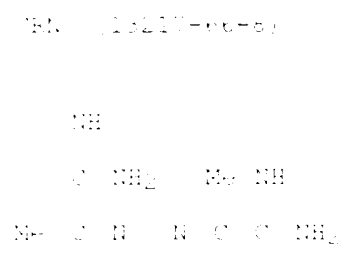
[illegible]

[illegible]

[illegible]

L81 ANSWER 13 OF 18 REGISTRY COPYRIGHT 2001 ACS
RN **2997-92-4** REGISTRY
CN Propanimidamide, 2,2'-azobis[2-methyl-, dihydrochloride (1:1) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Propionamidine, 2,2'-azobis[2-methyl-, dihydrochloride (8CI, 9CI)
OTHER NAMES:
CN 2,2'-Azobis(2-amidinopropane dihydrochloride
CN 2,2'-Azobis(2-methylpropionamidine) dihydrochloride
CN 2,2'-Azobis(2-methylpropionamidine) dihydrochloride
CN 2,2'-Azobis(2-methylpropionamidine) dihydrochloride
CN 2,2'-Azobis(2-methylpropionamidine) dihydrochloride
CN 2,2'-Azobis(2-methylpropionamidine) dihydrochloride
CN 2,2'-Azobis(2-methylpropionamidine) dihydrochloride
CN AAPH
CN Azobis(isobutyramidine) dihydrochloride
CN Azobisisobutyramidinium dichloride
CN Azostarter V-50
CN V-50
CN V-50 [Wako]
CN [illegible]

[illegible]



●2 HCl

REFERENCE 1: 135:[illegible]

REFERENCE 2: 135:[illegible]

REFERENCE 3: 135:362344

REFERENCE 4: 135:357184

REFERENCE 5: 135:328434

REFERENCE 6: 135:316776

REFERENCE 7: 135:259417

REFERENCE 8: 135:249125

REFERENCE 9: 135:257922

REFERENCE 10: 135:243054

L81 ANSWER 14 OF 18 REGISTRY COPYRIGHT 2001 ACS
[illegible]
[illegible]
C H4 O . 2 C H Cl3

L#1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2007 ACS on STN

RN **521-31-3** REGISTRY

CN 1,4-Phthalazinedione, 5-amino-2,3-dihydro- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 5-Aminophthalhydrazide

CN 5-Aminophthalic acid hydrazide

CN 5-Aminophthalic hydrazide

CN 5-Amino-1,4-dihydroxyphthalazine

CN 5-Amino-2,3-dihydro-1,4-phthalazinedione

CN **Luminol**

FS 3D CONCORD

MF C8 H7 N3 O2

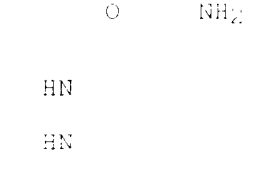
CI COM

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CASLL, CAPLUS, CASREACT, EN, CHEMAT, CHEMLIST, CIN, CSCHEM, EMBASE, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PIRA, PROMT, RTECS*, SYNTHLINE, TOXCENTER, TOXLIT, USPATFULL

**File contains numerically searchable property data)

Other sources: DSL**, EINECS**, TSCA**

**Enter CHEMLIST File for up-to-date regulatory information



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

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REFERENCE 2: [illegible]

REFERENCE 3: [illegible]

REFERENCE 4: [illegible]

L61 ANSWER 1 OF 1 REGISTRY [illegible]

RN 110-82-7 REGISTRY

CN **Cyclohexane (8CI, 9CI)** (CA INDEX NAME)

OTHER NAMES:

CN Benzene, hexahydro-

CN Hexahydrobenzene

CN Hexamethylene

CN Hexanaphthene

FS 3D CONCORD

MF C6 H12

CI COM, RPS

LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, IMSDRUGCONF, IMSPATENTS, IPA, MEDLINE, MRCK*, NAPRALERT, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, TOXLIT, TRCTHERMO*, TULSA, ULIDAT, USPATFULL, USPATFULL2, VTB

(*File contains numerically searchable property data)

Other Sources: EINECS**, EPINDY**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

20212 REFERENCES IN FILE CA (1967 TO DATE)

424 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

2123 REFERENCES IN FILE CAPLUS (1967 TO DATE)

18 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 135:380375

REFERENCE 2: 135:377327

REFERENCE 3: 135:377041

REFERENCE 4: 135:376911

REFERENCE 5: 135:376910

REFERENCE 6: 135:376909

REFERENCE 7: 135:376908

REFERENCE 8: 135:376907

REFERENCE 9: 135:376906

REFERENCE 10: 135:376905

67-66-3

Chloroform (8CI)

[illegible]

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CN   Trichloroform
CN   Trichloromethane
RN   [illegible]-54-5
MF   C H Cl3
CI   COM
LC   STN Files:   ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
       BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CASREACT, CBNB, CEN,
       CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU,
       DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2,
       ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB,
       IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PIRA,
       PROMT, RTECS*, SPECINFO, TOXCENTER, USPATFULL, USPAT2, VETU, WPIX
         (*File contains numerically searchable property data)
     Other Sources:   EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)


    Cl

Cl  CH  Cl


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

           26006 REFERENCES IN FILE CA (1967 TO DATE)
             107 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
           26063 REFERENCES IN FILE CAPLUS (1967 TO DATE)
              18 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE    1:  135:380378

REFERENCE    2:  135:377818

REFERENCE    3:  135:377284

REFERENCE    4:  135:377281

REFERENCE    5:  135:377180

REFERENCE    6:  135:376484

REFERENCE    7:  135:376481

REFERENCE    8:  135:376476

REFERENCE    9:  135:376474

REFERENCE   10:  135:376470

L1   ANSWER  1  OF  18  CA  COPYRIGHT 2001 ACS on STN
RN   67-56-1  REGISTRY
     [illegible]
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FILE 'HCAPLUS' ENTERED AT 15:54:56 ON 14 JUL 2004
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This file supports REGISTRY [illegible]
all substance data from the REGISTRY file. Enter HELP [illegible]
more information.

HCAplus now provides online access to patents and literature
covered in CA from 1907 to the present. Bibliographic
information and abstracts were added in 2001 for over [illegible]
million records from 1907-1966.

CAS roles have been modified effective December 16, 2001. Please
check your SDI profiles to see if they need to be revised. For
information on CAS roles, enter HELP ROLES at [illegible]
the CAS Roles Training [illegible]

=> d 178 all tot

L78 ANSWER 1 OF 22 HCAPLUS COPYRIGHT 2001 ACS
AN 2001:44824 HCAPLUS
DN 134:248581
TI Is the **Oxidation** of **High-Density Lipoprotein Lipids Different** Than the **Oxidation** of **Low-Density Lipoprotein Lipids**?
AU Thomas, Michael J.; Chen, Qairi; Jaculewi, Manal; Anderson, Rachel; Wilson, Martha; Weinberg, Richard; Gorin-Thomas, Mary G.; Rudel, Lawrence L.
CS Departments of Biochemistry Internal Medicine (Gastroenterology) and Pathology/Comparative Medicine, Wake Forest University School of Medicine, Winston-Salem, NC, 27157, USA
SO Biochemistry (2001), 40(6), 1719-1724
CODEN: BICHAW; ISSN: 0006-2960
PB American Chemical Society
DT Journal
LA English
CC 9-5 (General Biochemistry)
AB This article gives detailed insight into the kinetics of **high-d. lipoprotein** (**HDL**) **oxidn.** catalyzed by an azo initiator 2,2'-azobis(2-amidinopropane) dihydrochloride (AAPH) or by copper. AAPH initiated **oxidn.** of human **HDL** [illegible] times faster than was human primate **HDL** with a similar [illegible]. The **oxidizability** of human **HDL** [illegible] times lower than the **oxidizability** of human [illegible] derived from **oxidn.**, although the rates of lag phase in **HDL oxidn.** [illegible] Saturable binding of copper to **HDL** was observed [illegible] Copper-catalyzed **oxidn.** of human **HDL** and primate **HDL** were 2-3-fold lower than the rates of human **HDL**. Copper-catalyzed **oxidn.** of human **HDL** was slower than that of human **HDL**, but human HDL was more **oxidized** after the same time. Thus, the kinetics of the **oxidn.** of **HDL** [illegible] LDL, although **HDL lipids** [illegible] **oxidized** LDL.

Lipoproteins
[illegible]
high-d., [illegible] oxidn. of high-d. lipoprotein lipids

[illegible]

high-d., ; oxidn. : high-
d. lipoprotein lipids
azobis(2-amidinopropane)

IT Lipoproteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
high-d., human primate; oxidn.
high-d. lipoprotein lipids
catalyzed by azobis(2-amidinopropane
copper)

IT Autoxidation
Michaelis constant
Oxidation
Oxidizability
Reaction kinetics
(**oxidn.** of **high-d. lipoprotein**
lipids catalyzed by azobis(2-amidinopropane
ride or by copper

IT **Lipids**, biological studies
Phospholipids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
oxidn. of **high-d. lipoprotein**
lipids catalyzed by azobis(2-amidinopropane)
ride or by copper)

IT 57-11-4, Stearic acid, biological studies 57-88-5, Cholesterol, esters
60-33-3, Linoleic acid, biological studies 112-80-1, Oleic acid,
biological studies 506-32-1, Arachidonic acid 544-63-8, Myristic acid,
biological studies 544-64-9, Myristoleic acid , oxygen,
biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**oxidn.** of **high-d. lipoprotein**
lipids catalyzed by azobis(2-amidinopropane)
ride or by copper)

IT **2997-92-4** 7440-50-8, Copper, biological studies
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study); USES (Uses)
(**oxidn.** of **high-d. lipoprotein**
lipids catalyzed by azobis(2-amidinopropane)
ride or by copper)

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L78 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2003 ACS
AN [illegible] HCAPLUS
DN [illegible]
TI Method and test **kit** for the **determination** of [illegible] activity by **oxidative** [illegible] protein [illegible]
[illegible] and [illegible] by **measuring** [illegible] [illegible]
[illegible]
IN Kolov, [illegible]; Lewin, [illegible]
PA [illegible]
SO PCT Int. Appl., [illegible].
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT [illegible]

EI [illegible]
RE: [illegible]
[illegible] IE [illegible]
[illegible]
AB The [illegible] kit [illegible] assessment [illegible] **oxidative** [illegible] **protein** and the **oxidative** stress [illegible], by **measuring** the antioxidative properties of their **protein** -contg. components, such as body fluids or tissues. According to the invention, the samples are examd. in a free-radical generating system after sepn. of low-mol. wt. antioxidants, for example by gel chromatog., and the **measurement** results are compared with those of a sample of identical amino acid compn. but which has not been subjected to **oxidative** stress (std. value). The method for **measuring** the antioxidative activity of **proteins** is based [illegible] some amino acids which have not been modified by **oxidn.** [illegible] have said property as components of **proteins** but [illegible] during **oxidative** stress.

IT test **kit** fluorometry **oxidative** stress **protein** antioxidative activity

IT UV radiation
(biol. effects; method and test **kit** for **detn.** [illegible] changes caused by **oxidative** stress in **protein** contg. body fluids and tissues by **measuring** antioxidant activity fluorometrically)

IT Mammary gland
(carcinoma; method and test **kit** for **detn.** [illegible] changes caused by **oxidative** stress in **protein** contg. body fluids and tissues by **measuring** antioxidant activity fluorometrically)

IT **Lipoproteins**
RL: ANT (Analyte); ANST (Analytical study)
(**low-d.**; method and test **kit** for **detn.** of changes caused by **oxidative** stress in **protein** contg. body fluids and tissues by **measuring** antioxidant activity fluorometrically)

IT Animal tissue
Blood analysis
Body fluid
Fluorometry
Gel permeation chromatography
Oxidative [illegible]
Test kits
[illegible] kit for **detn.** [illegible] **oxidative** [illegible] **protein** [illegible] by **measuring** [illegible]

IT **Proteins**, [illegible]
RL: ANT (Analyte); [illegible]; ANST (Analytical study); [illegible]
(method and test **kit** for **detn.** of [illegible] **oxidative** stress in **protein** contg. body fluids and tissues by **measuring** [illegible]

IT [illegible], **analysis**, **analysis**

[illegible]
[illegible] kit for **detn.** [illegible]
[illegible]

RL: ARU (Analytical role, unclassified); BAC (Biological activity or effector, except adverse); ANST (Analytical study); BIOL (Biological study)
(method and test **kit** for **detn.** of diseases caused by **oxidative** stress in **protein** contg. body fluids and tissues by **measuring** antioxidant activity fluorometrically)

IT 50-81-7, L-Ascorbic acid, **analysis**
RL: ARU (Analytical role, unclassified); BAC (Biological activity or effector, except adverse); ANST (Analytical study); BIOL (Biological study)
(method and test **kit** for **detn.** of diseases caused by **oxidative** stress in **protein** contg. body fluids and tissues by **measuring** antioxidant activity fluorometrically)

L28 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2004 ACS
AN 2000:134517 HCAPLUS
DN 132:148748
TI Fluorometric **determination** of **lipid** **oxidizability** in biological systems using diphenylhexatriene
IN Hermetter, Albin; Hofer, Gerald; Lichtenberg, Dov
PA Austria
SO Austrian, 10 pp.
CODEN: AUXXAK
DT Patent
LA German
IC ICM G01N033-92
CC **9-5** (Biochemical Methods)
Section cross-reference(s): 1, 6, 14, 17
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
AT 405693	B	19991025	AT 1994-1678	19940824
AT 9401875	A	19990215		

PI

AB The invention concerns the **detn.** of **lipid** **oxidizability** in biol. systems, e.g. in **lipoproteins**, by using diphenylhexatriene and its **lipid**-derivs. as markers for detecting the progress of **oxidn.** via the decreasing fluorescent signal. The method is used for cells, serum, and food samples to **measuring** the effects of oxidants or antioxidants.

ST **lipid oxidizability** biol material diphenylhexatriene fluorometry

IT **Lipids**, biological studies
Sphingolipids
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(esters, derivs. with diphenylhexatrienes; fluorometric **detn.** of **lipid oxidizability** in biol. systems using diphenylhexatriene)

IT
RL: ARG (Analytical reagent use); BAC (Biological activity or effector, except adverse); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(esters, derivs. with diphenylhexatrienes; fluorometric **detn.** of **lipid oxidizability** in biol. systems using diphenylhexatriene)

IT
RL: ARU (Analytical role, unclassified); BAC (Biological activity or effector, except adverse); BIOL (Biological study)

Atherosclerosis

Flow analysis
Heart, disease
Oxidizability
Oxidizing agents
Sickle cell anemia
(fluorometric **detn.** of **lipid oxidizability** in biol. systems using diphenylhexatriene)

IT **Albumins**, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(fluorometric **detn.** of **lipid oxidizability** in biol. systems using diphenylhexatriene)

IT **Cytochromes**
Estrogens
Hemoglobins, Methemoglobin
Myoglobins
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); BIOL (Biological study); USES (Uses)
(fluorometric **detn.** of **lipid oxidizability** in biol. systems using diphenylhexatriene)

IT **Lipids**, biological studies
Lipoproteins
Sphingolipids
RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); BIOL (Biological study); PROC (Process)
(fluorometric **detn.** of **lipid oxidizability** in biol. systems using diphenylhexatriene)

IT **Lipoproteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**high-d.**; fluorometric **detn.** of **lipid oxidizability** in biol. systems using diphenylhexatriene)

IT **Oxidation**
(**lipid**; fluorometric **detn.** of **lipid oxidizability** in biol. systems using diphenylhexatriene)

IT **Lipoproteins**
RL: BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); BIOL (Biological study); PROC (Process)
(**low-d.**; fluorometric **detn.** of **lipid oxidizability** in biol. systems using diphenylhexatriene)

IT **Serum albumin**
(pharmacological; fluorometric **detn.** of **lipid oxidizability** in biol. systems using diphenylhexatriene)

IT **Ubiquinones**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(reduced; fluorometric **detn.** of **lipid oxidizability** in biol. systems using diphenylhexatriene)

IT **1,3-Butadiene**, 1,6-diphenyl-, **lipid**, **lipid** peroxidation

in biol. systems using diphenylhexatriene

IT 50-81-7, L-Ascorbic acid, biological studies [illegible], Matrix
75-91-2, tert-Butylhydroperoxide 2997-92-4 [illegible], biol.,
biological studies 7440-50-8, Copper, biological studies [illegible],
Hydrogen peroxide, biological studies [illegible], oxygen, biological
studies 9002-17-9, Xanthine oxidase [illegible], Oxygenase, lip-
10028-15-6, Ozone, biological studies [illegible], Pyruvoxygenase
92474-77-6
RL: BSU (Biological study, unclassified); CAT (Catalyst use); BIOL
(Biological study); USES (Uses)
(fluorometric detn. of lipid oxidizability
in biol. systems using diphenylhexatriene)

L75 ANSWER 4 OF 22 HCAPLUS COPYRIGHT 2011 ACS
AN 2003:8244 HCAPLUS
DN 138:177595
TI **Baseline diene conjugation** in **LDL**
lipids: An indicator of circulating **oxidized LDL**
AU **Ahotupa, M.**; Vasankari, T. J.
CS Department of Physiology, MCA Research Laboratory and [illegible],
University of Turku, Turku, Finland
SO Free Radical Biol. Med. [illegible], 2[illegible] 11 [illegible], [illegible]
CODEN: FRBMEH; ISSN: [illegible]
PB Elsevier Science Inc.
DT Journal
LA English
CC **9-5** (Biochemical Methods)
Section cross-reference(s): 14
AB The wide acceptance of the **diene conjugation**-method in
monitoring **low-d. lipoprotein** (**LDL**
) **oxidn.** ex vivo has led to development of an assay, which
measures the amt. of **baseline diene**
conjugation (BDC) in circulating **LDL**, and is an
indicator of **oxidized LDL** in vivo. The **LDL**
-BDC assay is based on pptn. of serum **LDL** with buffered
heparin, and **spectrophotometric detn.** of
baseline level of **conjugated dienes** in
lipids extd. from **LDL**. Compared to existing methods for
oxidized LDL, **LDL**-BDC [illegible]
perform. Chem. studies by HPLC and UV-vis spectroscopy show that **LDL**
-BDC is a specific measure of [illegible] **oxidized**
LDL. Validity of the assay is further [illegible]
correlation with the level of [illegible] **oxidized**
LDL. [illegible] **LDL**-BDC [illegible]
related to **coronary**, [illegible]
atherosclerosis. [illegible]
[illegible] **LDL**-BDC
[illegible] **atherosclerosis** [illegible],
hypertension, diabetes, and [illegible], [illegible]
seem to indicate that [illegible]
atherosclerosis **LDL**-BDC [illegible]
specificity [illegible] **lipid**
atherosclerosis. [illegible] **LDL**-
[illegible]
LDL oxidn. [illegible] **atherosclerosis**

[illegible]
Spectroscopy
LDL baseline diene conjugation
[illegible] oxidized LDL

LDL)
IT Conjugation [illegible]
(diene; LDL-baseline diene
conjugation assay for circulating oxidized
LDL
IT Lipoproteins
RL: ANT (Analyte); BSU (Biological study, unclassified); ANST (Analytical study)
(low-d., oxidized; LDL-
baseline diene conjugation assay for
circulating oxidized LDL)
IT Lipoproteins
RL: ANT (Analyte); PRP (Properties); ANST (Analytical study)
(low-d.; LDL-baseline
diene conjugation assay for circulating
oxidized LDL)
RE.CNT 67
RE
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L18 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2001 ACS
AN 1999:130575 HCAPLUS
DN 130:165162
TI Method for quantifying **oxidation** parameters of **low density lipoproteins** and diagnostic uses
IN **Ahotupa, Markku**
PA **Oy Aboatech AB, Finland**
SO U.S., 15 pp.
CODEN: USXXAM
DT Patent
LA English
IC ICM G01N021-76
ICS G01N033-92
NCL 436071000
CC **9-9** (Biochemical Methods)
Section cross-reference(s): 6, 13, 14
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 5874313	A	1999 [illegible]	[illegible]	[illegible]

AB A method for the **detn.** of the **oxidizability** of **low d. lipoproteins** (**LDL**) in a serum or plasma sample is described, which method comprises isolating the **LDL** in the sample or plasma and measuring the conjugated dienes in the **LDL fraction**, and the **lipids** in the **LDL fraction** or a **lipid fraction**, **detg.** the **baseline** level of conjugated dienes in the **lipid fraction**. The method is particularly useful for **oxidative** stress in the body of an individual, and, in particular, for assessing the **screening** risk, diagnosis, management and treatment of **atherosclerosis** and **coronary heart** disease.
IT **low density lipoprotein oxidn**
conjugated dienes; atherosclerosis

lipoprotein oxidn conjugated diene

IT **Atherosclerosis**
Coronary artery [illegible]
(diagnosis of risk; method [illegible] **oxidn.** parameters
of **low d. lipoproteins** and [illegible]
uses)
IT **Conjugated dienes**
RL: BOC (Biological occurrence); BPR (Biological process); [illegible]
(Purification or recovery); BSU (Biological study, unclassified); [illegible];
PREP (Preparation); PROC (Process)
(**lipids**; method for quantifying **oxidn.** parameters
of **low d. lipoproteins** and diagnostic
uses)
IT Aliphatic alcohols
RL: ARU (Analytical role, unclassified); BSU (Biological study,
unclassified); ANST (Analytical study); BIOL (Biological study); USES
(Uses)
(lower; method for quantifying **oxidn.** parameters of
low d. lipoproteins and diagnostic uses)
IT Antioxidants
Blood
Blood analysis
Chemiluminescence
Chemiluminescence spectroscopy
Diabetes mellitus
Diagnosis
Extraction
Mammal (Mammalia)
Obesity
Oxidation (biological)
Oxidative stress (biological)
Peroxidation
Plasma (blood)
Precipitation (chemical)
Serum (blood)
Spectrophotometry
(method for quantifying **oxidn.** parameters of **low**
d. lipoproteins and diagnostic uses)
IT Chloro alkanes
RL: ARU (Analytical role, unclassified); BSU (Biological study,
unclassified); ANST (Analytical study); BIOL (Biological study); USES
(Uses)
(method for quantifying **oxidn.** parameters of **low**
d. lipoproteins and diagnostic uses)
IT [illegible]
RL: [illegible]; BPR (Biological process); [illegible]
(Biological study); [illegible]; [illegible]
[illegible] **oxidn.** parameters of **low**
d. lipoproteins and [illegible]
IT Blood triglycerides
RL: BOC (Biological occurrence); BPR (Biological process); BSU
(Biological study); OCCU (Occurrence); PROC (Process)
(method for quantifying **oxidn.** parameters of **low**
d. lipoproteins and [illegible]
IT [illegible]
RL: [illegible]; BPR (Biological process); [illegible]

[illegible]
Low density lipoproteins
[illegible]

[illegible]

IT **Lipids**, biological studies
RL: BOC (Biological occurrence); BSU (Biological use, unclassified); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation); PROC (Process)
(unsatd.; method for quantifying **oxidn.** parameters of **low d. lipoproteins** and diagnostic uses)

IT **67-56-1**, **Methanol**, analysis **67-66-3**, **Chloroform**, analysis **110-82-7**, **Cyclohexane**, analysis **9005-49-6**, **Heparin**, analysis
RL: ARU (Analytical role, unclassified); BSU (Biological use, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(method for quantifying **oxidn.** parameters of **low d. lipoproteins** and diagnostic uses)

IT **2997-92-4**
RL: ARU (Analytical role, unclassified); BSU (Biological use, unclassified); RCT (Reactant); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(method for quantifying **oxidn.** parameters of **low d. lipoproteins** and diagnostic uses)

IT 57-88-5, Cholesterol, biological studies [illegible], alpha.-Tocopherol, 5677-56-4, Ubiquinol-10
RL: BOC (Biological occurrence); BPR (Biological process); BIOL (Biological study); OCCU (Occurrence); PROC (Process)
(method for quantifying **oxidn.** parameters of **low d. lipoproteins** and diagnostic uses)

IT 7727-37-9, Nitrogen, biological studies
RL: BUU (Biological use, unclassified); NUU (Other use, unclassified); BIOL (Biological study); USES (Uses)
(method for quantifying **oxidn.** parameters of **low d. lipoproteins** and diagnostic uses)

RE.CNT 7
RE
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[illegible] ANSWER [illegible] HCAPLUS [illegible]
AN [illegible]
TI [illegible]
IT **Measurement** of **oxidizability** [illegible]
AU Kontush, Anatol; Reinbrecht, Kirsten
CS Medical Clinic, University Hospital Eppendorf, Hamburg, [illegible], Germany
SO Methods Enzymol. (1999), 299(Oxygen Radicals in Biological Systems, Pt. A), 496-507
CODEN: MENZAS; ISSN: [illegible]
DT Journal; General Review
LA English

lipoprotein oxidn.
measure [illegible] **oxidn.**
lipoprotein oxidizability measurement

oxidn. assay, [illegible] the latter, [illegible] the effect of hydrophilic antioxidants in **lipoprotein oxidn**. and characterizing the **oxidizability** of plasma **lipoproteins**, and will [illegible] such as fast and simple sample [illegible], the [illegible] of plasma required, and avoidance of artifactual **oxidn.** during **lipoprotein isolation**. We propose that the **measurement** of plasma **oxidizability** at 234 nm is an adequate **screening** method in characterizing the **oxidizability** of plasma **lipoproteins**. (c) 1999 Academic Press.

ST **oxidizability** blood plasma uv vis **spectroscopy**

IT Antioxidants
Blood analysis
Oxidation (biological)
Oxidizability
Plasma (blood)
UV and visible **spectroscopy**
(**measurement** of **oxidizability** : blood plasma)

IT **Lipoproteins**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**measurement** of **oxidizability** of blood plasma)

IT **2997-92-4**, AAPH 7758-98-7, Copper sulfate, biological studies
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(oxidant; **measurement** of **oxidizability** of blood plasma)

IT 9029-60-1, Oxygenase, lip-
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(soybean; **measurement** of **oxidizability** of blood plasma)

RE.CNT 21

RE

(1) Bowry, V; J Am Chem Soc 1993, V115, P9[illegible] HCAPLUS
(2) Bowry, V; Proc Natl Acad Sci U S A 1992, V89, P[illegible] HCAPLUS
(3) Braesen, J; unpublished data 1997
(4) Dabbagh, A; J Clin Invest 1994, V94, P[illegible] HCAPLUS
(5) Esterbauer, H; Free Radic Biol Med 1992, V13, P341 HCAPLUS
(6) Esterbauer, H; Free Radic Res Commun 1990, V9, P[illegible] HCAPLUS
(7) Frei, B; J Lipid Res 1994, V35, P[illegible] HCAPLUS
(8) Frei, B; [illegible] HCAPLUS
(9) [illegible], B; [illegible] HCAPLUS
(10) [illegible], B; [illegible] HCAPLUS
(11) [illegible], B; [illegible] HCAPLUS
(12) [illegible], B; [illegible] HCAPLUS
(13) [illegible], B; [illegible] HCAPLUS
(14) Kontush, A; Free Radic Res 1996, V24, P[illegible] HCAPLUS
(15) Kontush, A; J Biol Chem 1996, V271, P[illegible] HCAPLUS
(16) Kontush, A; J Lipid Res 1996, V37, P[illegible] HCAPLUS
(17) Ma, Y; Proc Soc Exp Biol Med 1994, V205, P[illegible] HCAPLUS
(18) Mata, J; Arterioscler Thromb 1994, V14, P[illegible] HCAPLUS
(19) [illegible], B; Arterioscler Thromb [illegible], [illegible], P[illegible] HCAPLUS

L7 ANSWER [illegible] OF [illegible] HCAPLUS [illegible]
AN 1998:4[illegible] HCAPLUS
DN 129:213794
TI **Baseline diene conjugation** in **LDL**
lipids as a direct **measure** of in vivo **LDL**
oxidation
AU **Ahotupa, Markku**; Marniemi, [illegible]; [illegible]; [illegible],
Kati; Raitakari, Olli T.; Vasankari, Tommi; Viikari, Jorma; [illegible];
Yla-Herttuala, Seppo
CS MCA Research Laboratory, Department of Physiology, University of Turku,
Turku, FIN-205[illegible], Finland
SO Clin. Biochem. (1998), 31(4), [illegible]
CODEN: CLBIAS; ISSN: 0009-9120
PB Elsevier Science Inc.
DT Journal
LA English
CC **9-16** (Biochemical Methods)
Section cross-reference(s): 14
AB The aim of the study was to [illegible] test validity [illegible]
method (**LDL baseline diene**
conjugation, **LDL**-BDC) for **detn.** of circulating
oxidized LDL. A detailed comparison between the
ultracentrifugation and **heparin** pptn. [illegible] **LDL**
isolation was performed to test suitability [illegible] pptn.
method. Validity of **LDL**-BDC as an [illegible]
oxidized LDL was tested by comparing **LDL**-BDC
to results obtained by the immunol. autoantibody method. [illegible]
LDL isolated by **heparin** pptn. did not differ
from those **isolated** by sequential ultracentrifugation. While
highest amt. of **diene conjugation** was found in
LDL (40 of that in serum), substantial amts. were also found in
VLDL (31) and **HDL** (25). When **analyzed** in
the same samples, assays for the titer of autoantibodies against
oxidized LDL and **LDL**-BDC were found to show
good correlation (r = 0.5[illegible], p [illegible] 0.001, [illegible]). These results, together
with thus far conducted studies on clin. applicability of the method,
indicate that **LDL**-BDC is a promising [illegible]
method for estn. of **LDL oxidn.** in vivo.
ST **diene conjugation LDL lipid**
oxidn atherogenesis; blood **lipid heparin** pptn
ultracentrifugation
IT **Atherosclerosis**
Blood analysis
[illegible]
[illegible]
[illegible]
baseline diene conjugation [illegible]
LDL lipids [illegible] **measure** [illegible]
LDL oxidn.
IT Blood **lipids**
High-density lipoproteins
Oxidized low-density lipoproteins
Very low-density lipoproteins

[illegible]
[illegible], Heparin, [illegible]
[illegible]
[illegible]
Baseline [illegible]

AN [illegible]
TI **Spectrophotometric determination** : **oxidized low-density lipoprotein**
AU Zima, T.; Urbanova, L.; Mrazek, L.; Holecek, V.; Fialova, L.
CS I. Ustav Lekarske Chemie Biochemie, Charles University, [illegible], Prague, Czech Rep.
SO Klin. Biochem. Metab. (1995), 3(2), 72-76
CODEN: KBMEFQ; ISSN: 1210-7921
PB Ceska Lekarska Spolecnost J. Ev. Purkyne
DT Journal
LA Czech
CC **9-5** (Biochemical Methods)
AB **Oxidn.** of **low-d. lipoproteins** (**LDL**) in **oxidative** stress is involved in many human diseases, e.g. **atherosclerosis**, hypertension, and rheumatoid. **Oxidatively** modified **LDL** [illegible] are immunogenic and cytotoxic particles with chemotactic effect on monocytes and smooth muscle cells. **LDL oxidn.** can be assessed by detn. of **oxidized LDL**, antibody levels against oxLDL, formation of **conjugated dienes**, and changed lag phase in **isolated LDL** particles. A simple **spectrophotometric detn.** of oxLDL is presented. The **detn.** of oxLDL can be done in blood serum samples sepd. at collection and stored at -20 or -80.degree.C for 1 mo. Under these storage conditions, the oxLDL concns. in samples do not change significantly. The optimal sample size is 800-1000 .mu.L serum. Serum (1 mL) is mixed with 7 mL pptn. soln. (0.064 M Na citrate plus 5g/L **heparin**, pH 5.05) at 4.degree.C and centrifuged. The pellet is resuspended in 1 mL 0.1 M Na phosphate buffer (from 1 g NaCl L, pH 7.4 and 0.1 mL of the suspension is extd. with 1.5 mL **chloroform**-**methanol** (2:1). The org. layer is evapd. under air stream, dissolved in **cyclohexane**, and its absorbance is **measured** at 234 nm; the oxLDL concn. is then calcd. using a formula. The addn. of EDTA as anticxidant to the samples can raise the oxLDL concns. due to prooxidative effects of the Fe-EDTA complex. It is convenient to leave the upper aq. layer with hydrophilic antioxidants over the org. layer during the evapn. under air. The oxLDL concn. in a control group of blood donors was 44.0 .+-. 11.6 .mu.mol/L and the coeff. of variation of the method was 12.1 . The method is fast, simple, cheap, time saving, and allows **measurements** of large nos. of samples. The [illegible] precise manual work with multiple samples [illegible] **spectrophotometer** [illegible].
IT **blood analysis oxidized lipoprotein**
spectrophotometry
Blood analysis
[illegible] **spectroscopy**
(**oxidized low-d. lipoprotein**
spectrophotometric detn. in human **blood serum**)
IT **Oxidized low-density lipoproteins**
RL: ANT (Analyte); ANST (Analytical study)
(**oxidized low-d. lipoprotein**
spectrophotometric detn.)

[illegible]

low density lipoprotein
atherosclerotic [illegible]

CODEN: JLIRAW; ISSN:
PB Lipid Research, Inc.
DT Journal
LA English
CC 14-5 Mammalian hormones
Section cross-reference(s): 9
AB Hydroperoxycholesterols (OOHs) are intermediates in cholesterol **oxidn.** and potential cytotoxins. A normal-phase HPLC method with UV (205 nm) detection was developed that could resolve 7.alpha.OOH, 7.beta.OOH, 7-ketocholesterol (7K), and the epimeric 7-hydroxycholesterols (7OHs). Hydroperoxycholesterol formation was **investigated** when **LDL** was exposed to four different **oxidizing** systems: Cu^{2+}; Ham's F-10; mouse peritoneal macrophages in Ham's F-10; and a metal-independent peroxyl-radical generating system (AAPH). With all 4 **oxidizing** systems, 7OOH (both free and esterified, mostly as the .beta.-isomer) was the major oxysterol formed at early times, with 7K dominating at later stages (.gtoreq.24 h) in Cu-oxLDL. When **LDL** was **oxidized** in the presence of cells there was transfer of free oxysterols from **LDL** to the cells. Negligible 7OOH, but significant amts. of 7OH, accumulated in the cells primarily within cellular free 7OOH. **Lipid** extds. from aortic plaque samples obtained from patients undergoing carotid endarterectomy were **analyzed**. Only trace amts. of 7OOH (< 1% of total cholesterol) could be detected using this normal-phase HPLC method with UV detection, with a more sensitive reverse-phase method (<0.1%) **chemiluminescence** detection. Ketone (7K) was the major 7-oxygenated sterol detected, at least 4-fold in excess of that found for 7OOH, followed by 7.beta.OH and 7.alpha.OH. The presence of 7OOH in plaque indicate its lability in biol./cellular systems and may signify the ability of cells in the artery wall to metabolize it further.
ST hydroperoxycholesterol **oxidized LDL** **lipoprotein atherosclerosis**
IT **Atherosclerosis**
HPLC
Peritoneal macrophage
(7-hydroperoxycholesterol and its degrdn. products in **oxidized** **LDL lipoprotein** and human **atherosclerotic** plaques)
IT **Oxidized low-density lipoproteins**
RL: PRP (Properties)
(7-hydroperoxycholesterol and its degrdn. products in **oxidized** **LDL lipoprotein** and human **atherosclerotic** plaques)
IT
(Ham's F-10; 7-hydroperoxycholesterol and its degrdn. products in **oxidized LDL lipoprotein** and **atherosclerotic**
RL: ANT (Analyte); PRP (Properties); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence)
(7-hydroperoxycholesterol and its degrdn. products in **oxidized** **LDL lipoprotein** and **atherosclerotic** plaques)
IT , **oxidized**
oxidized **LDL lipoprotein** and **atherosclerotic**

[illegible] oxidized **LDL lipoprotein** [illegible] **atherosclerotic** [illegible]

L[illegible] ANSWER 10 OF 22 HCAPLUS COPYRIGHT [illegible]
AN 1997:518549 HCAPLUS
DN 127:231539
TI Suitability of chemical in vitro models to **investigate** **LDL oxidation**: study with different initiating conditions in native and .alpha.-tocopherol-supplemented **LDL**
AU Seccia, Milfred; Albano, Emanuele; Bellomo, Giorgio
CS Dep. Medical Sciences, 2nd Fac. Medicine, Univ. Torino, Novara, I-28100, Italy
SO Clin. Chem. (Washington, D. C.) [illegible], [illegible], [illegible]
CODEN: CLCHAJ; ISSN: 0009-9147
PB American Association for Clinical Chemistry
DT Journal
LA English
CC **9-16** (Biochemical Methods)
Section cross-reference(s): 6, 13
AB **Isolated** human **LDL**, used in the native form or supplemented with .alpha.-tocopherol (.alpha.T), were **oxidized** with Cu2+, 2,2'-azobis-(2-amidino propane) hydrochloride (AAPH), and H2O2 plus horseradish peroxidase (HRP). The **oxidn.** kinetics were **measured spectrophotometrically** at 234 nm to follow the formation of **conjugated dienes** and evaluated as resistance to **oxidn.** (lag phase, LP) and maximal **oxidn** . rate (propagation rate, PR). The duration of LP in nonsupplemented **LDL** was different with the three prooxidant stimuli (LP, in min: 96.+-.19 for Cu2+, 28.7.+-.6.7 for HRP, and 67.1.+-.11.2 for AAPH). No correlation was found between the values obtained with Cu2+ and AAPH or HRP, but a significant correlation was found with AAPH and HRP (r = 0.798). In vitro .alpha.T supplementation prolonged the LP and decreased the PR with all the stimuli. The extent of increase in LP was highly correlated (r = 0.672, for Cu2+ and HRP; r = 0.605, for Cu2+ and AAPH; r = 0.749, for AAPH and HRP). Although the evaluation of ex vivo **LDL** **oxidn.** is dependent on the prooxidant stimulus, the three prooxidant conditions used detect equally well the antioxidant .alpha.T supplementation in preventing **LDL oxidn.**
IT **lipoprotein low density oxidn**
tocopherol oxidant
IT Blood
Blood analysis
Oxidation
Oxidizing
[illegible] **investigate** [illegible] **LDL** **oxidn.**
IT **Low-density lipoproteins**
RL: ANT (Analyte); BPR (Biological process); BUU (Biological study); ANST (Analytical study); BIOL (Biological study); PROC (Process)
(chem. in vitro models to **investigate** human **LDL** **oxidn.**
IT **Oxidized low-density lipoproteins**
RL: ANT (Analyte); BPR (Biological process); BUU (Biological study); ANST (Analytical study); BIOL (Biological study); PROC (Process)
[illegible] **investigate** [illegible] **LDL** **oxidn.**
2007-92 ;

(chem. in vitro models ; investigate human LDL oxidn.)

L7- ANSWER 11 OF 22 HCAPLUS COPYRIGHT [illegible]
AN [illegible]:[illegible] HCAPLUS
DN [illegible]:[illegible]
TI **Spectrophotometric** assay for total peroxyl radical trapping antioxidant potential in human serum
AU Valkonen, Mila; Kuusi, Timo
CS Department of Medicine, University of Helsinki, Helsinki, [illegible], Finland
SO J. Lipid Res. (1997), 38(4), [illegible]
CODEN: JLPRAW; ISSN: 0022-2275
PB Lipid Research, Inc.
DT Journal
LA English
CC **9-5** (Biochemical Methods)
AB Antioxidants prevent modification of **low d. lipoprotein** (**LDL**) by free radicals and possibly also atheroma formation. The capacity of human serum to protect against free radicals is **measured** by the total peroxyl radical-trapping potential (TRAP). Its **measurement** has thus far required equipment not available in many clin. labs. such as a thermostatted oxygen electrode cell or a luminometer. To develop a simple method using a water soluble free radical probe, dichlorofluorescin-diacetate (DCFH-DA), previously used before in studies of respiratory burst in inflammatory cells. The **oxidn.** by radicals from thermal decompn. of 2,2'-azobis(2-amidinopropane)dihydrochloride (AAPH) converts this nonfluorescent compd. to highly fluorescent dichlorofluorescein (DCF). The DCF also has absorbance at 504 nm thus enabling the **detn.** of TRAP either fluorometrically or **spectrophotometrically.** Increasing the concn. of AAPH enables the **measurement** of DCF formation and its inhibition by serum samples at room temp. The intra-and interassay coeffs. of variation of this assay are 3.4% and 4.6%, resp. The mean value for serum TRAP of healthy subjects is 1155 .mu.mol/l. The TRAP in human serum can be increased by adding various antioxidant substances to the assay in vitro or by dietary supplementation of healthy subjects with vitamin E in vivo. An increase was also found in serum vitamin E levels and in the ratio of the human **LDL** is able to resist **oxidn.** Thus the **detn.** of TRAP by this method, which requires only com. available chems., can be used for the evaluation of phenomena assocd. with **lipid** accumulation in human artery wall.
IT **spectrophotometric** assay [illegible]; [illegible]
[illegible]
RL: [illegible]
Blood analysis
(**spectrophotometric** [illegible] in human **serum**
IT Artery
RL: [illegible]
Spectrophotometry
[illegible]; [illegible]
spectrophotometric [illegible]
[illegible]

spectrophotometric [illegible]
[illegible]

IT [illegible], Vitamin E, [illegible]
RL: ANT (Analyte); ANST (Analytical study)
spectrophotometric [illegible]
IT 2997-92-4, 2,2'-Azobis(2-amidinopropane) [illegible]
RL: ARG (Analytical reagent use); ANST (Analytical study); [illegible]
spectrophotometric assay for total peroxyl radical trapping antioxidant potential in human serum)

L78 ANSWER 12 OF 22 HCAPLUS COPYRIGHT 2001 ACS
AN 1997:225520 HCAPLUS
DN 126:30547
TI Initiation of **LDL oxidation** by copper ions or AAPH yields different kinetic parameters which are correlated
AU Leinonen, M.; Pentikäinen, S.; Hörkkö, M.
CS Inst. Occupational Clinical Medicine, Univ. Kuopio, Kuopio, Finland
SO Clin. Chim. Acta (1997), 260(1), 47-54
CODEN: CCAAR; ISSN: 0009-8981
PB Elsevier
DT Journal
LA English
CC **9-16** (Biochemical Methods)
AB The authors followed the prodn. of **conjugated dienes** in the presence of CuSO4 or AAPH in identical samples (204 .mu.mol/L **LDL** cholesterol) simultaneously. They found significant correlation coeffts. between the results of both tests while the abs. values were different.
ST **LDL oxidn** copper AAPH kinetics
IT **Oxidation**
initiation of **LDL oxidn.** by copper ions or AAPH yields different kinetic parameters which are correlated
IT **Low-density lipoproteins**
RL: PEP (Physical, engineering or chemical process); PROC (Process)
initiation of **LDL oxidn.** by copper ions or AAPH yields different kinetic parameters which are correlated
IT **2997-92-4** 7758-98-7, Copper sulfate (CuSO4), uses
RL: NUU (Other use, unclassified); USES (Uses)
initiation of **LDL oxidn.** by copper ions or AAPH yields different kinetic parameters which are correlated

[illegible] ANSWER [illegible]
[illegible]
[illegible]
[illegible] **oxidation** [illegible]
[illegible] : **low density lipoproteins**
AU **Ahotupa, Markku**; Kuutu, Merja; Kaartinen, Kai
CS MCA Research Laboratory, University of Turku, Turku, Finland
SO Clin. Biochem. (1996), 29(2), 139-44
CODEN: CLBIAS; ISSN: 0009-9120
DT Journal
LA English
CC **6-1** [illegible]

[illegible]
LDL [illegible] detn.
baseline [illegible] : conjugated dienes
lipids [illegible] LDL.

LDL-BDC, the CV was 4.4 [illegible] and 4.[illegible] [illegible] for within-and between-assay
precision, resp. For the LDL-TRAP, the [illegible] was [illegible] and [illegible] for
within-and between-assay precisions, resp. [illegible]
-70.degree.) did not affect LDL-B[illegible] [illegible] LDL-TRAP
levels. A neg. correlation was found [illegible] exist between the LDL
-BDC and LDL-TRAP values. LDL-BDC and LDL
-TRAP values were at the same level in both sexes. The LDL-B[illegible]
was found to increase with age. Short-term [illegible] with [illegible]
increased LDL-TRAP substantially, but did not affect the
LDL-BDC level. Conclusions: These methods are fast and simple to
perform, and can, therefore, be applied to clin. purposes.

ST oxidn product antioxidant LDL lipoprotein

IT Antioxidants
  Blood analysis
Senescence
   (simple methods of quantifying oxidn. products and
   antioxidant potential of low d.
   lipoproteins)

IT Lipoproteins
RL: ANT (Analyte); ANST (Analytical st[illegible])
   (low-d., simple methods of quantifying
   oxidn. products and antioxidant potential of low
   d. lipoproteins)

L78 ANSWER 14 OF 22 HCAPLUS COPYRIGHT 2001 ACS
AN 1995:966113 HCAPLUS
DN 124:23179
TI Direct measurement by single photon counting of lipid
hydroperoxides in human plasma and lipoproteins
AU Zamburlini, Adriana; Maiorino, Matilde; Barbera, Pietro; Roveri,
Antonella; Ursini, Fulvio
CS Dep. Biol. Chem., Univ. Padua, Padua, [illegible], Italy
SO Anal. Biochem. (1995), 232(1), [illegible]
CODEN: ANBCA2; ISSN: 0003-2697
DT Journal
LA English
CC 9-16 (Biochemical Methods)
AB A single photon counting procedure for measuring lipid
hydroperoxides in human plasma or LDL-VLDL, [illegible]
from extn. and chromatog., is described. This appears to be a relevant
procedure because the recovery of phospholipid hydroperoxides from plasma
is a crit. point which, in the hands, was limited and [illegible]
[illegible] luminol, [illegible]
[illegible]
[illegible]
[illegible] measurement [illegible]
[illegible] "[illegible]" [illegible]
[illegible] chemiluminescent [illegible]
[illegible] lipoproteins LDL-VLDL
isolated by heparin-[illegible]
[illegible] lipid [illegible]
[illegible]

lipoproteins.
[illegible] lipid [illegible]
[illegible] LDL
[illegible]

[illegible]

[illegible]
direct **measurement** [illegible]
lipid hydroperoxides in human plasma and **lipoproteins**

IT **Lipoproteins**
RL: AMX (Analytical matrix); ANST (Analytical study)
(direct **measurement** by single photon counting of
lipid hydroperoxides in human plasma and **lipoproteins**
)
IT **Lipids, analysis**
RL: ANT (Analyte); ANST (Analytical study)
(hydroperoxides, direct **measurement** by single photon counting
of **lipid** hydroperoxides in human plasma and
lipoproteins)

L[illegible] ANSWER [illegible] OF [illegible] COPYRIGHT [illegible] ACS
AN [illegible]
DN [illegible]
TI Assay of **low-density lipoprotein**
susceptibility to **oxidation** by means of [illegible]
generator AAPH
AU Biffanti, Susanna; Bonanome, Andrea; Malerino, Matilde; Trevisi, Fabio; Pagnan, Antonio
CS Department of Internal Medicine, University of Padua, Padua, Italy
SO Nutr., Metab. Cardiovasc. Dis. (1994), 4(3), 137-41
CODEN: NMCDEE; ISSN: 0939-4753
DT Journal
LA English
CC **9-16** (Biochemical Methods)
AB **Oxidative** modification of **low-d.**
lipoproteins (**LDL**) increases their atherogenic
properties. The susceptibility of **LDL** particles to
oxidn. is influenced both by their antioxidant content and by
their fatty acid pattern. Several biochem. methods have been employed to
study **LDL oxidn.** In this paper we describe a method
for evaluating the susceptibility of **LDL** to **oxidative**
modification. **LDL isolated** from plasma of healthy
male volunteers was **oxidized** in vitro by means of
2,2'-azobis(2-amidinopropane) dihydrochloride (AAPH), a free radical
initiator. The **oxidative** reaction was followed by continuous
monitoring of the rate of oxygen consumption. The [illegible] oxygen
consumption was divided into two consecutive phases, that is an [illegible]
"[illegible]" [illegible]
"[illegible]" [illegible]
[illegible] anal. [illegible] **LDL** [illegible]
[illegible] analyzed
[illegible]
LDL [illegible]
antioxidant in protecting **LDL** from **oxidn.** The
peroxidn. rate was influenced by the fatty acid compn. of **LDL**,
increasing when the content of linoleic acid was higher [illegible],
[illegible], n = 40). These results indicate that the test with AAPH [illegible]
[illegible] the susceptibility of **LDL** to **oxidative**
[illegible]
KW **oxidn** low density lipoprotein

[illegible]
oxidn.
[illegible]
[illegible]
[illegible]

generator AAPH)

IT **Lipoproteins**
RL: RCT (Reactant)
(**low-d.**, assay of **low-d.**
lipoprotein susceptibility to **oxidn.** by means of the
free radical generator AAPH

IT 60-33-3, Linoleic acid, Biological studies 14 6-1-4, Vitamin E
RL: BOC (Biological occurrence); PROC (Process); ROC (Biological occurrence)
(assay of **low-d. lipoprotein**
susceptibility to **oxidn.** by means of the free radical
generator AAPH)

IT **2997-92-4**, 2,2'-Azobis(2-amidinopropane) dihydrochloride
RL: RCT (Reactant)
(assay of **low-d. lipoprotein**
susceptibility to **oxidn.** by means of the free radical
generator AAPH)

L78 ANSWER 16 OF 22 HCAPLUS COPYRIGHT 2001 ACS
AN 1994:27018 HCAPLUS
DN 120:27018
TI Method for delipidation of lyophilized **lipoproteins** of
high density from human blood serum
IN Sizalov, Aleksandr P.
PA USSR
SO U.S.S.R.
From: Izobreteniya 1992, (28), 243.
CODEN: URXXAF
DT Patent
LA Russian
IC ICM C07K015-16
CC **9-9** (Biochemical Methods)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
SU 1752167	A3	1992[illegible]	SU 1990-4[illegible]	19[illegible]

AB Lyophilized **high-d. lipoproteins** from human
serum are delipidated by extn. with a **chloroform-**
methanol mixt. followed by extn. with Et2O. The mixt., in
25-60 vol. **methanol** and is used at 100-300 mL per 1-2 g
lyophilized **lipoprotein**; the **lipoproteins** are then
extd. twice with six vols. of Et2O. Extns. are carried out for
1-45 min at -1 to 4.degree., and the final product is dried in vacuo.

IT **high density lipoprotein** [illegible]
[illegible]; lipid from **high density**
lipoprotein

IT **Lipids**, [illegible]
RL: [illegible]
(removal from lyophilized **high-d.**
lipoproteins in, by chloroform-MeOH
extn.

IT **Lipoproteins**
RL: ANT (Analyte); PROC (Process)
high-d., [illegible]
(MeOH in

[illegible] analysis 30307-32-0

[illegible]

[illegible]

[illegible]

Determination [illegible]
[illegible]
[illegible]

Mario; Barbin, Milena; Lunec, John; Aruoma, Okezie; Tritschler, Hanns; Halliwell, Barry
CS Dept. of Biochem., Univ. of Verona, Verona, Italy
SO Biochim. Biophys. Acta (1994), 1210(1), 81-8
CODEN: BBACAQ; ISSN: 0006-3002
DT Journal
LA English
CC **9-3** (Biochemical Methods)
Section cross-reference(s): 15
AB **Lipid** hydroperoxides are implicated in the pathogenesis of **atherosclerosis**. This work was therefore set up to obtain a fast and specific **chemiluminescent** assay for **measuring** hydroperoxides in native **low-d. lipoprotein** (**LDL**). The app. was a complete HPLC system including 2 pumps, an autosampler, a computer, and a **chemiluminescent** detector with a T-mixing coil in the place of the column. Samples were injected in the autosampler and mixed with **luminescent** reagents (1.mM **luminol** and 1.mM microperoxidase in .1M tris buffer, pH 10)) in the T-piece. To generate a calibration curve, linoleic acid hydroperoxide was obtained by incubating soybean lipoxygenase with linoleic acid. The calcd. **conjugated diene** concn. was in good agreement with the nominal linoleic acid hydroperoxide concn. The **chemiluminescence** was linear with the amt. of linoleic acid hydroperoxide injected and the detection limit was about 3 pmol linoleic acid hydroperoxide. The **chemiluminescence** induced by **copper-oxidized LDL** was linear with concn.; the detection limit, when compared with linoleic acid hydroperoxide, was similar. The reproducibility of the linoleic acid hydroperoxide and of **oxidized LDL** hydroperoxide was examd. in single pools. The coeff. of variation on the triplicates of each pool was about 5%. The titer of the linoleic acid hydroperoxide and **oxidized LDL** peroxides was quite stable for at least 10 days when stored under Ar at 4.degree. in the presence of EDTA. The mean value of the **LDL** hydroperoxides in 16 control subjects was 145.20 .+-. 96.81 pmol/mg **LDL protein**. This microperoxidase-**luminol**-dependent **chemiluminescence** flow-injection assay is a rapid, sensitive, and selective method for **measuring lipid** hydroperoxides in native **LDL**.
IT blood **lipoprotein lipid** hydroperoxide **detn**;
chemiluminescence lipid hydroperoxide **detn**;
HPLC **lipid** hydroperoxide **detn**; liq chromatog
lipid hydroperoxide **detn**; flow injection **lipid** hydroperoxide **detn**
IT Blood analysis
lipid hydroperoxide detn. in low-d. lipoproteins of human blood, by chemiluminescent flow-injection assay
IT Spectrochemical analysis
chemiluminescence, in lipid hydroperoxide detn., in low-d. lipoproteins of human blood
IT Chromatography, column and liquid
high-performance, **lipid** hydroperoxide **detn**. by, **chemiluminescence**
IT Lipids, hydroperoxides
low d., lipid hydroperoxide detn. by chemiluminescent

assay.

L[illegible] ANSWER [illegible] OF 22 HCAPLUS COPYRIGHT [illegible] ACS
AN [illegible]:33 [illegible] HCAPLUS
DN [illegible]:2[illegible]
TI Pre-beta **high-density lipoprotein** **determined** by immunoblotting with **chemiluminescent** detection
AU O'Kane, Maurice J.; Wilson, B. Brian; McNulty, John; McPartlin, Mary M.; Trimble, Elisabeth R.
CS Dep. Clin. Biochem., R. Victoria Hosp., Belfast, BT[illegible] 6BA, UK
SO Clin. Chem. (Washington, D. C.) (1992), 38(11), [illegible]
CODEN: CLCHAU; ISSN: 0009-9147
DT Journal
LA English
CC **9-10** (Biochemical Methods)
Section cross-reference(s): 1[illegible]
AB A novel assay is described of pre-beta **high-d.** **lipoprotein** (**HDL**), a unique **apolipoprotein** A-I (apo A-I)-contg. **lipoprotein** particle. The pre-beta and alpha **lipoproteins** are sepd. by electrophoresis in agarose and transferred onto a membrane by capillary blotting. The membrane is sequentially incubated with sheep anti-human apo A-I antiserum and then with a conjugate of rabbit anti-sheep immunoglobulin and horseradish peroxidase. **Chemiluminescence** formed by the peroxidase-catalyzed **oxidn.** of **luminol** in the presence of an enhancer is captured on photog. film, and the pre-beta **HDL** band is quantified by transmission densitometry. The assay is calibrated with stds. prepd. from a ref. serum dild. in 9 mol/L urea. Within-batch precision (CV) at pre-beta **HDL** concns. of 22.1 and 44.3 mg/L was 7% and 4.9% resp. Pre-beta **HDL** contained 1.6% (0.65-2.6%, mean and range) of total serum apo A-I in 30 normolipidemic subjects.
ST serum prebeta **high density lipoprotein** **detn**; immunoblotting prebeta **lipoprotein detn**; **chemiluminescence** prebeta **lipoprotein detn**
IT **Blood analysis**
(pre-.beta.-**high-d. lipoprotein** **detn.** in human, by immunoblotting and **chemiluminescence** detection)
IT **Lipoproteins**
RL: ANT (Analyte); ANST (Analytical study)
(**high-d.** pre-.beta.-, **apolipoprotein** A-I-contg., **detn.** of, in human serum by immunoblotting and **chemiluminescence**

L[illegible] ANSWER [illegible] OF [illegible] HCAPLUS COPYRIGHT [illegible] ACS
AN [illegible]:[illegible]
DN [illegible]:[illegible]
TI **Lipid** [illegible] and the [illegible] low **density lipoproteins**: [illegible] fluorescence
AU Laranjinha, Joao A. N.; Almeida, Leonor M.; Madeira, Vitor M. C.
CS Fac. Farm., Univ. Coimbra, Coimbra, [illegible]
SO Arch. Bioquim. Biofis., [illegible], [illegible]
[illegible]

d. **lipoproteins** LDL

oxidative

oxidative
periods of LDL oxidn. as monitored by
Therefore, the sensitive and simple
semiquant. screening test for the detection of potentially
important water-sol. chain-breaking antioxidants. Conversely to O2
consumption, the absence of any initial lag phase of probe degrdn. attests
to the sensitivity of the assay. An improved methodol. based on
second-deriv. spectroscopy to follow the formation of
conjugated diene isomers directly in the prepn. without
the need for lipid extn. also confirms the sensitivity of this
assay. To assess the usefulness of
IT lipid peroxidn inhibition detn fluorometry
low density lipoprotein
fluorometry; antioxidant
IT Hydroperoxides
RL: ANST (Analytical study)
(conjugated diene, detn. of, by
second-deriv. spectrometry, lipid peroxidn. study
by
IT Fluorometry
(lipid peroxidn. and its inhibition in low-
d. lipoproteins detn. by,
IT Peroxidation
(of lipids, in low-d.
lipoproteins,
IT Fluorescence quenching
(
low-d. lipoproteins study by
IT Lipids, biological studies
RL: BIOL (Biological study)
(peroxidn. of, in low-d. lipoproteins,
IT Spectrochemical analysis
(fluorometric, second-deriv., for conjugated diene
hydroperoxides)
IT Lipoproteins
RL: ANST (Analytical study)
(low-d., lipid peroxidn. in,
RL: PROC (Process)
oxidn.)
RL:

(peroxyl radicals generated by, partitable [illegible] assay [illegible]
by)

L[illegible] ANSWER 20 OF 22 [illegible] COPYRIGHT [illegible] ACS
AN [illegible]
DN [illegible]:94155
TI **Determination** of **lipid** hydroperoxides in **low density lipoprotein** from human plasma [illegible] high performance liquid chromatography with **chemiluminescence** detection
AU Miyazawa, Teruo; Fujimoto, Kenshiro; [illegible]
CS Dep. Food Chem., Tohoku Univ., Sendai, [illegible], Japan
SO Biomed. Chromatogr. (1990), 4(5), 181-4
CODEN: BICHE2; ISSN: 0269-3879
DT Journal
LA English
CC **9-3** (Biochemical Methods)
AB A high performance liq. chromatog. system with **chemiluminescence** detection (HPLC-CL) was used for **detg.** phospholipid hydroperoxides in human plasma **low-d. lipoprotein** (**LDL**). This system involves sepn. of phospholipids from **LDL**-total **lipids** with a small prep. silica gel HPLC and post-column detection of hydroperoxide-dependent **chemiluminescence** produced by **luminol oxidn.** during the reaction of hydroperoxide with cytochrome c-heme. By using HPLC-CL, phosphatidylcholine hydroperoxide (PCOOH) could be detected in human plasma **LDL**, and **LDL**-PCOOH concn. was higher in patients with **atherosclerosis** and hyperlipidemia than that of healthy volunteers. The **LDL**-PCOOH level was proportional to the plasma total cholesterol concn.
ST phospholipid hydroperoxide **detn lipoprotein** plasma; liq chromatog **chemiluminescence** hydroperoxide **lipoprotein**
IT **Blood analysis**
(phospholipid hydroperoxides **detn.** in **low-d. lipoproteins** in, of human by HPLC with **chemiluminescence** detection)
IT Chromatography, column and liquid
(high-performance, of **lipid** of phospholipid hydroperoxides, in **low-d. lipoproteins** of human blood plasma)
IT **Lipids, analysis**
Phosphatidylcholines, **analysis**
Phospholipids, **analysis**
RL: ANT (Analyte); ANST (Analytical study)
(hydroperoxides, **detn.**, in **low-d. lipoproteins** from human blood plasma by HPLC with **chemiluminescence** detection)
IT Hydroperoxides
RL: ANT (Analyte); ANST (Analytical study)
(**lipid**, **detn.**, in **low-d. lipoproteins** from human plasma by HPLC with **chemiluminescence** detection)
IT **Lipoproteins**
[illegible]

[illegible] **detn.** **low-d. lipoproteins** [illegible] **chemiluminescence** [illegible]

lipoproteins
chemiluminescence

L?* ANSWER ?? OF ?? HCAPLUS COPYRIGHT ? ACS
AN 1989:188713 HCAPLUS
DN 110:188713
TI **Chemiluminescence** assay for **lipid** hydroperoxides: application to monitoring **low density lipoprotein** (**LDL**) **oxidation** in vitro
AU Wieland, E.; Parthasarathy, S.; Steinberg, D.
CS Dep. Med., Univ. California, San Diego, La Jolla, CA, 92093, USA
SO Bioluminin. Chemiluminin., Proc. Int. Bioluminin. Chemiluminin. Symp., 4th (1986), Meeting Date 1986, 321-4. Editor(s): Schoenmeriech, J. Publisher: Wiley, Chichester, UK.
CODEN: 60CTAL
DT Conference
LA English
CC 9-5 (Biochemical Methods)
AB The title assay is based on hematin-catalyzed decompn. of **lipid** hydroperoxides accompanied by O radical formation which leads to light prodn. in the presence of **luminol**. The method was used to study **oxidn.** of **low-d. lipoproteins** by endothelial cells. The assay was specific, and results were related to those **detd.** by other methods.
ST **lipid** hydroperoxide **detn chemiluminescence**; **low density lipoprotein oxidn detn**
IT Artery, metabolism
(aorta, endothelium, **low-d. lipoproteins** **oxidn.** by, **chemiluminescence** assay for **detn**. of)
IT **Spectrochemical analysis**
(**chemiluminescence**, for **lipid** hydroperoxides)
IT **Lipids, analysis**
RL: ANT (Analyte); ANST (Analytical study)
(hydroperoxy, **detn.** of, by **chemiluminescence** assay)
IT Hydroperoxides
RL: ANT (Analyte); ANST (Analytical study)
(**lipid**, **detn.** of, by **chemiluminescence** assay)
IT **Lipoproteins**
RL: BCT (Reactant)
(**low-d.**, **oxidn.** of, by **chemiluminescence** assay, **detn.** of
IT [illegible]
RL: ANT (Analyte); ANST (Analytical study)
(**detn.** of, by **chemiluminescence** assay

L?* ANSWER ?? OF ?? HCAPLUS COPYRIGHT ? ACS
AN 1985:484412 HCAPLUS
DN 103:84412
TI Extraction of **lipids** from **lipoproteins** and tissues for **methanol**: chloroform-**methanol**

9-9 [illegible]
Lipids
[illegible]

MeOH-CHCl3 extn. The values obtained by both methods were identical in all cases. Thus, CH_2Cl_2 may replace $CHCl_3$, as it is less toxic.

IT Serum **lipid** extn methylene chloride; **lipoprotein** **lipid** extn methylene chloride; liver **lipid** extn methylene chloride

IT Glycerides, **analysis**
Phospholipids
RL: ANT (Analyte); ANST (Analytical study)
(**detn.** of, in **blood serum** and **lipoproteins** and liver of humans and lab. animals, **lipid** extn. by methylene chloride in **methanol** for, **chloroform** compared to)

IT **Lipids, analysis**
RL: ANST (Analytical study)
(extn. of, from **blood serum** and **lipoproteins** in liver of humans lab. animals, by methylene chloride and **methanol**, **chloroform** compared to)

IT Liver, composition
(**lipid** extn. from, by methylene chloride and **methanol**, **chloroform** compared to)

IT **Lipoproteins**
RL: ANST (Analytical study)
(**lipids** extn. from, of blood serum of humans by methylene chloride and **methanol**, **chloroform** compared to)

IT **Blood analysis**
(**lipids** extn. from, of humans by methylene chloride and **methanol**, **chloroform** compared to)

IT Extraction
(of **lipids**, from blood serum and **lipoprotein** and liver of humans and lab. animals, by methylene chloride and **methanol**, **chloroform** compared to)

IT 57-88-5, **analysis**
RL: ANT (Analyte); ANST (Analytical study)
(**detn.** of, in **blood serum** and **lipoproteins** and liver of humans and lab. animals, **lipid** extn. by methylene chloride in **methanol**, **chloroform** compared to)

IT **67-56-1**, Uses and miscellaneous
RL: USES (Uses)
(**lipids** extn. from blood serum and **lipoproteins** in liver of humans and lab. animals by methylene chloride and, **chloroform** compared to)

IT [illegible]
RL: [illegible]
lipids [illegible] lipoproteins [illegible] by **methanol** [illegible], **chloroform** [illegible]

[illegible]
FILE 'WPIX' ENTERED AT [illegible]
[illegible]

[illegible]

=> d all abeq tech tot

L104 ANSWER 1 OF 8 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2001-125962 [14] WPIX
DNN N2001-092845 DNC C2001-036754
TI Detecting **low density lipoprotein** (**LDL**) in blood, useful for diagnosis of arteriosclerosis, by measuring a complex of **LDL** or denatured **LDL** with an acute phase reactant or a fibrinolytic related protein.
DC B04 D16 S03
IN MASHIBA, S; UCHIDA, K
PA (IKAG-N) IKAGAKU CO LTD; [illegible]
CYC 26
PI EP 1070962 A2 20010124 (200114)* EN 25p [illegible]
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
JP 2001091517 A 20010406 (200126) 15p [illegible]
ADT EP 1070962 A2 EP 2000-114984 20000720; JP 2001091517 A JP 2000-12210 20000120
PRAI JP 2000-12210 20000120; JP 1999-207913 19990722
IC ICM **G01N033-92**
ICS C07K014-47; C07K014-745; C07K016-18; C07K016-36; [illegible]; C12N015-09; G01N033-53; G01N033-577; [illegible]
ICA C12P021-08
AB EP 1070962 A UPAB: [illegible]
NOVELTY - A novel method for detecting **low density lipoprotein** (**LDL**) and denatured **LDL** in blood using as a measuring subject a complex of **LDL** or denatured **LDL** (containing **oxidized LDL**) with an acute phase reactant, blood coagulation protein, fibrinolytic related protein or disinfectant substance produced by macrophage. The **LDL** in the complex is not **oxidatively** denatured.
DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:
(1) a method for detecting a novel **lipoprotein** concerning arteriosclerotic lesion using an antihuman fibrinogen antibody and an immune reaction detecting reagent such as an antihuman ApoB antibody labeled with a labeling substance, typically including an enzyme; and
[illegible] **LDL** [illegible] specifically recognizes a **LDL** [illegible]
USE - The method can be used for detecting **low density lipoprotein** (**LDL**). It can also be used for detecting a novel **lipoprotein** [illegible]

Alternatively, the measuring subject is a complex of a fibrinolytic related protein such as a tissue factor, plasmin, prothrombin, thrombin, antithrombin, plasmin activator inhibitor, etc., with **LDL** or denatured **LDL**. Alternatively, the measuring subject is a complex of a fibrinolytic related protein such as macrophage such as myeloperoxidase, cathepsin, lysozyme, elastase, etc., with **LDL** or denatured **LDL**. The method is an immunological measuring method such as an enzyme immunoassay, latex flocculation method, immunological chromatic **spectrochemical** analysis, or immunochromato method.

L104 ANSWER 2 OF 8 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 2001-061704 [07] WPIX
DNN N2001-046244 DNC C2001-017179
TI Stabilization of denatured **lipoprotein** by freeze-drying it as a standard for assay of the denatured **lipoprotein** in assay of physiological activity.
DC B04 D16
IN KIMURA, J; KOHNO, H; SHIGEMATSU, T; SHIMAMURA, K; UEDAIRA, H
PA (VESS-N) VESSEL RES LAB CO LTD
CYC 1
PI WO 2000075189 A1 20001214 (200107) JA [1] <--
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
AU 2000047818 A 20001228 (200119) C07K014-775
ADT WO 2000075189 A1 WO 2000-JP3413 20000526; AU 2000047818 A AU 2000-47818 20000526
FDT AU 2000047818 A Based on WO 2000075189
PRAI JP 1999-155198 19990602
IC ICM C07K014-775
ICS G01N033-92
ICA C07K016-18
AB WO 2000075189 A UPAB: 20010201
NOVELTY - A method for the preparation of stabilized artificially denatured **lipoprotein** by freeze-drying of the **lipoprotein** after denaturation, is new.
DETAILED DESCRIPTION - INDEPENDENT CLAIM are also included for the following:
(1) the artificially denatured **lipoprotein** prepared by the method;
(2) the use of the artificially denatured **lipoprotein** as a standard for the assay of the **lipoprotein** in assay of physiological activity; and
(3) the assay of the **lipoprotein**.
USE - As an artificially denatured **lipoprotein** as **lipoprotein**-related physiological activity in the examination and diagnosis of diseases such as arterial sclerosis, cerebral infarction, cerebral sclerosis, renal failure, diabetic disease, and myocardial infarction.
DESCRIPTION OF DRAWINGS - The drawing shows the stability of artificially denatured LDL

lipoprotein [illegible] very low density
lipoprotein VLDL , low density
lipoprotein LDL , lipoprotein [illegible]
lipoprotein [illegible] , [illegible] **lipoprotein**
(HDLP) or chylomicron.
Preferred Method: Denaturation is by **oxidation** [illegible] such as copper or iron ion, or by acetylation or treatment with malondialdehyde. A stabilizing agent may be added before [illegible], such as sucrose, lactose, trehalose, bovine serum albumin (BSA) or human serum albumin (HSA). The stabilized denatured **lipoprotein** is reactive with anti-DLH3 antibody secreted by the mouse/mouse hybridoma FOH1a/DLH3 (FERM BP-7171) and may be used as a standard in immunochemical assay methods such as radioimmunoassay, enzyme immunoassay, fluorescence or **luminescence** immunoassay and condensation immunoassay, and especially for sandwich enzyme immunoassay (ELISA).

L104 ANSWER 3 OF 4 WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1999-191282 [16] WPIX
DNC C1999-053035
TI Determination of **lipid oxidisability** - by fluorescent assay using a diphenylhexatriene marker initiated with copper ions.
DC B04 D16 D16 E14 J04 S03
IN HERMETTER, A; HOFER, G; LICHTENBERG, D
PA (HERM-1) HERMETTER A; (HOFE-1) HOFER G; (LICH-I) LICHTENBERG D
PC 1
PI AT 9401875 A 19990215 (199916)* 17p G01N033-92 [illegible]
AT 405693 B 19990815 (199937) G01N033-92 [illegible]
ADT AT 9401875 A AT 1994-1875 19941004; AT 405693 B AT 1994-1875 19941004
FDT AT 405693 B Previous Publ. AT 9401875
PRAI AT 1994-1875 19941004
IC ICM **G01N033-92**
AB AT 9401875 A UPAB: 19990424
Method for determining the **oxidisability** of lipids comprises incorporating diphenylhexatriene (DPH) or lipid conjugates containing covalently bound DPH into **lipoproteins**, initiating **oxidation** of these markers with Cu2+ or other **oxidation** initiators, and measuring the decrease in fluorescence intensity over time.
USE - To diagnose or determine predisposition for atherosclerosis and coronary heart disease; to diagnose or determine predisposition for sickle-cell anaemia, cancer or Alzheimer's disease; [illegible] determine the storage stability of foods.
ADVANTAGE - The [illegible] **oxidisability** [illegible] **oxidation**; [illegible] Samples using [illegible].
[illegible]
MC [illegible]
FA AB; DCN
MP [illegible]
ABEX: S03-E04E; [illegible]

oxidisability [illegible] conjugated diene
[illegible] lipid fraction.
[illegible]
AUSTRIA M

PI [illegible]
AET [illegible]
PRAI [illegible]
IC ICM G01N021-76
    ICS G01N033-92
AB [illegible]
    Method for determining the **oxidisability** of **low-density lipoproteins** (**LDL**) in a sample of plasma sample from a mammal comprises: (a) isolating a **LDL fraction** from the sample; (b) separating a lipid **fraction** from the **LDL fraction**; and (c) determining the amount of **conjugated dienes** in the lipid **fraction**.
    USE - The method is used for assessing risk of atherosclerosis and coronary heart disease or for diagnosis, management and research of atherosclerosis and coronary heart disease.
    Dwg.0/0
FS CPI EPI
FA AB
MC CPI: B04-B01B; B04-B04B4; B04-N02; B11-A07B2; B11-A07B4; B11-M04A
    EPI: **S03-E04E**; S05-E10C; S05-E10H

L[illegible] ANSWER [illegible] OF [illegible] MEDIX [illegible] STRUCTURE FOR SEARCH PURPOSES
AN 1997-547725 [illegible] MEDIX
DNN N1997-288286 DNC C1997-172199
TI Process for detecting **oxidised lipid** and estimating its acid value - comprises adding lanthanide shift reagent to specimen and subjecting to **spectroscopy**.
DC B04 D23 J04 S03
PA (KOIK-I) KOIKE K
IC 1
PI JP 09143492 A 19970603 (199732)* [illegible]
ADT JP 09143492 A JP 1995-333866 19951117
PRAI JP 1995-333866 19951117
IC ICM C11C003-00
    ICS C11C001-08 ; G01N021-78; G01N031-00
AB JP 09143492 A UPAB: 19970806
    Process for detecting the presence of a water-soluble **oxidised** lipid comprises (1) adding a lanthanide shift reagent to a specimen and (2) subjecting the resultant mixture to **spectroscopy**.
    Also claimed is a process for forming a water-soluble **oxidised** lipid by (11) adding superoxide dismutase and [illegible] to (i) emulsion prepared by dissolving linoleic acid in buffered methyl alcohol and adding [illegible] **low density lipoprotein** [illegible]
    USE - [illegible] **lipoprotein**.
    [illegible]
FS CPI EPI
FA AB; IPC
MC CPI: B04-B01B; B11-C07D2; B12-A04; D11-A01; [illegible]
    EPI: S03-E04A; [illegible]

L[illegible] ANSWER [illegible] OF [illegible] MEDIX [illegible] STRUCTURE FOR SEARCH PURPOSES
[illegible]

PN EP 631138 A1 19931229 [illegible]
DS R: BE DE FR GB NL
JP 6072413 A 19940315 [illegible]
US 5561052 A 19961001 [illegible]
JP 2920044 B2 19990719 [illegible]
EP 631138 B1 20010228 [illegible]
DS R: BE DE FR GB NL
DE 69329697 E 20010405 [illegible]
AEXT EP 631138 A1 EP 1993-111276 19930714; JP 6072413 A JP 1993-144170 19930512; US 5561052 A CIP of US 1993-77070 19930616, US 1995-446 19950519; JP 2920044 B2 JP 1993-144170 19930512; EP 631138 B1 EP 1993-111276 19930714; DE 69329697 E DE 1993-629697 19930714, EP 1993-111276 19930714
PDT JP 2920044 B2 Previous Publ. JP [illegible]; JP [illegible] B Based on EP [illegible]
IRAI JP 1993-144170 19930512; US [illegible]
REP 09Jn1.Rel; [illegible]
IC ICM C12Q001-26; G01N033-92; [illegible]
ICS G01N024-08; G01N033-00; [illegible]
ICA C07C409-00; C11C003-00
AB EP 631138 A UPAB: 20010202
The following are claimed: (A) a process for detecting and determining an **oxidised** lipid comprising adding a lanthanide shift reagent to a specimen and subjecting the resulting mixt. to **spectroscopy**; (B) a process for forming an **oxidised** lipid comprising: (a) adding superoxide dismutase (SOD) and $uSO4 to [illegible] an emulsion prepd. by dissolving linoleic acid in deuterated methanol and adding the soln. to deuterated phosphate buffer while stirring, (b) [illegible] a **low-density lipoprotein** soln. dialysed against an undeuterated phosphate buffer; and (c) irradiating the mixt. with long-wave UV light; (C) a process for determining an **oxidised** lipid, comprising forming an **oxidised** lipid by process (B), adding dysprosium tripolyphosphate anion to the **oxidised** lipid, and analysing the mixt. by proton- NMR **spectroscopy** by means of a nuclear magnetic resonance **spectrometer**.
USE - Disclosed objects are to provide a process capable of readily and precisely determining a specimen to be **oxidised** lipid, a process for forming a water-soluble **oxidised** lipid having a hydroperoxide gp. which has specific inhibitory activity, and a process capable of directly determining an **oxidised** lipid in a biological sample such as plasma.
Dwg.0/11
FS [illegible]
FA AB; GI
MC [illegible]
DRN [illegible] A UPAB: [illegible]
A process for determining the presence of a minute amount of **oxidized** lipid in a specimen, said process comprising adding a lanthanide shift reagent to a specimen and subjecting the resulting mixture to **spectroscopy** to detect the presence of said **oxidized** lipid, wherein said water-soluble **oxidized** lipid is a water-soluble **oxidized** [illegible].

oxidn. [illegible] lipoprotein
lipid [illegible] spectroscopy.

PI [illegible]

DS [illegible]
DESIGNATED STATES: [illegible]
AP [illegible]
PRAI [illegible]
REI [illegible]

IC ICM G01N24-00
ICS A61B005-055; C12Q001-60; **G01N033-92**

AB WO 9321517 A UPAB: 19931213
A method for predicting atherosclerotic risk in a living patient, comprises; (a) subjecting a **lipoprotein**-contg. blood component sample to nuclear magnetic resonance **spectroscopy**; (b) measuring the area of the olefinic region resonance; (c) **oxidising** the sample of step (a); (d) incubating the sample of step (c); (e) subjecting the sample of (d) to NMR **spectroscopy**; (f) measuring the area of the olefinic region resonance; (g) determining the area of the olefinic region obtd. in step (b) with the area of the olefinic region obtd. in step (f); (h) measuring the percent change in olefinic area by subtracting the value obtd. in step (g) from the value obtd. in step (b) and classifying the patient as having a relatively high susceptibility to atherosclerosis if the percentage decrease in olefinic area is relatively high.
Also claimed is a method for predicting atherosclerotic risk in a living patient where step (b) comprises measuring the ratio of 2.0 and 2.8 ppm in the proton **spectrum**.
ADVANTAGE - The process operates on any lipid contg. body fluid, blood or bone marrow plasma. The new process tests a patients propensity for developing atherosclerosis by measuring the **oxidisability** of plasma **lipoproteins** and lipids.
Dwg.0/2

FS CPI EPI GMPI
FA AB
MC CPI: B04-B04A6; B04-B04L5; B05-C05; B11-C05; B12-N04A; B07-H04
EPI: S03-E07; S03-E14H1; S03-E14H2

L1[illegible] ANSWER [illegible] OF [illegible] WPIX COPYRIGHT 2001 DERWENT INFORMATION LTD
AN 1993-[illegible] [19] WPIX
DNN N1993-[illegible] DNC C1993-[illegible]
TI Blood serum or plasma **chemiluminescence** determn. - includes addn. of ferrous salt soln. to initiate flash after pretreatment with calcium chloride and heparin and **lipoprotein** suppn..
DC [illegible]
IN [illegible]
PA [illegible]
CYC [illegible]
PI [illegible]
ADT [illegible]
PRAI [illegible]
IC [illegible]
AB [illegible] UPAB: [illegible]
[illegible] **chemiluminescence** [illegible], useful in diagnosis of liver fatty degeneration, etc., involves [illegible] of test material with [illegible] and measuring the **chemiluminescence** [illegible] initiation by the addition. The optical density of [illegible]

low density lipoprotein
fraction [illegible]
lipoprotein [illegible]

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      (FILE 'HOME' ENTERED AT 15:19:57 ON 14 DEC 2001)
                SET NOTICE OFF

      FILE 'REGISTRY' ENTERED AT 15:20:05 ON 14 DEC 2001
L1              2 S 9005-49-6 OR 9041-08-1
L2              1 S CHLOROFORM/CN
L3              1 S METHANOL/CN
L4              0 S L1 AND L2 AND L3
L5              0 S L4 AND NR=3
L6              0 S L4 AND L5
L7              0 S L6 AND Z/NR
L8              0 S L6 AND H2O
L9              1 S CYCLOHEXANE/CN
L10             1 S LUMINOL/CN
                E ABAP/CN
                E "2,2'-AZOBIS(2-AMINOPROPANE)"/CN
L11             2 S E3,E4
L12             6 S 41556-11-0/CRN
L13             1 S L12 AND CLH
L14             3 S L11,L13

      FILE 'HCAPLUS' ENTERED AT 15:21:45 ON 14 DEC 2001
                E LIPOPROTEIN, LDL
L15         21916 S E3,E8 (L) (LOW DENSITY OR LOW D)
L16          2903 S E3,E5 (L) LDL
L17         22241 S L15,L16
L18         32066 S (LIPOPROTEIN OR LIPO PROTEIN)(L)(LDL OR LOW DENSITY OR LOW D
L19         32066 S L17,L18
L20         10735 S (LIPOPROTEIN OR LIPO PROTEIN) (L)(VLDL OR VERY LOW DENSITY O
L21          6673 S LIPOPROTEIN#/CW(L)(VLDL OR VERY LOW DENSITY OR VERY LOW D)
L22         12207 S L19-L21
L23         15198 S LIPOPROTEIN#/CW(L)(HDL OR HIGH DENSITY OR HIGH D)
L24           101 S LIPOPROTEIN#/CW(L)(VHDL OR VERY HIGH DENSITY OR VERY HIGH D)
L25           196 S (LIPO PROTEIN OR LIPOPROTEIN)(L)(VHDL OR VERY HIGH DENSITY OR
L26         15714 S (LIPO PROTEIN OR LIPOPROTEIN)(L)(HDL OR HIGH DENSITY OR HIGH
L27         42874 S L22-L26
L28           141 S L27 AND (L11 OR HEPARIN OR HEPARIN)
L29             0 S L27 AND HEPARINASE
L30             0 S L27 AND HEPARANASE

      FILE 'HEALTH' ENTERED AT 15:24:11 ON 14 DEC 2001
L31             0 S HEPARANASE OR HEPARANASE

      FILE 'HCAPLUS' ENTERED AT 15:24:17 ON 14 DEC 2001
L32             1 S L27 AND L31
L33           141 S L28-L29,L32
L34             0 S L33 AND (L1 OR "HEPARIN" OR "HEPARIN") AND (L2 OR "METHANOL"
                  OR "METHANOL")
L35             0 S L33 AND (L1 OR "HEPARIN" OR "HEPARIN") AND (L3 OR "METHANOL"
                  OR "METHANOL")
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L49             1 S L47-L48
L50             1 S L45-L48 NOT PN
L51            14 S L49 AND L50
L44             4 S L49 AND PHT OR PHO

     FILE 'HCAPLUS' ENTERED AT 15:54:58 ON 14 SEP 2005

L51            44 S L45,L46,L47 AND L1
L52            11 S L50 AND (OR OY OR HEXANE)
L52            78 S L38-L43,L48,L51
               E AHOTUPA M/AU
L53             1 S E3,E4 AND L52
               E OY /PA,CS
L54             5 S E6,E7
               E ABOATECH/PA,CS
L55             6 S E3-E6
L56             5 S (OY /L  ABOATECH) PA,CS
L57             1 S L51 AND L49-L55
L58            14 S AHOTUPA M?/AU AND L2
L59             1 S L38-L43 AND L57
L60            14 S L58,L59
L61             4 S L5? NOT  ?OT  ?,PN,PI
L62             4 S L60,L59,L61
L63            20 S L52 AND S SC,SX
L64             1 S L52 AND FIT
               E TEST FIT,CT
               E E4+ALL
L65             1 S L52 AND E2
L66             1 S L52 AND E2,E3,E4/B1
L67             5 S L62,L64-L66
L68             2 S L63 AND  PHYTOSTEROL? OR APOLIPOPROTEIN?/TI
L69            18 S L63 NOT L68
L70            21 S L67,L69
L71            58 S L52 NOT L68-L70
L72             2 S L71 AND DIFFERENT/TI
L73             1 S L72 NOT HORSERADISH
L74            22 S L70,L73
L75            22 S L74 AND (?PROTEIN? OR BASELINE OR BASE LINE OR CONJUG?(L)VIEN
L76             8 S L75 AND (ISOLAT? OR PURIF? OR FRACTION? OR FRAGMENT?)
L77            22 S L75,L76
L78            22 S L77 AND  MEASUR? OR SCREEN? OR INVESTIGAT? OR DETERMIN? OR AN
               SEL HIT RN

     FILE 'REGISTRY' ENTERED AT 15:55:  ON 14 SEP 2005
               E [illegible]
               1 S L1-L3,L5-L8,L10,L11,L13,L14,L17

     FILE 'HCAPLUS' ENTERED AT 15:55:  ON 14 SEP 2005
               L [illegible]

     FILE 'REGISTRY' ENTERED AT 15:56:  ON 14 SEP 2005

     FILE 'HCAPLUS' ENTERED AT 15:56:58 ON 14 SEP 2005

     FILE 'WPIX' ENTERED AT 15:57:  ON 14 SEP 2005
               E AH [illegible]A M/AU
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L[illegible] [illegible] S L[illegible] AND [illegible]
L[illegible] [illegible] S L[illegible] AND [illegible]
L[illegible] [illegible] S L[illegible] AND [illegible]
L[illegible] [illegible] S L[illegible] AND L[illegible]-L[illegible]
L[illegible] [illegible] S L[illegible], L[illegible]-L[illegible], L[illegible]
L[illegible] [illegible] S L[illegible] AND [illegible]
L[illegible] [illegible] S L[illegible] NOT AU1K/ID,1M,1C
L[illegible] [illegible] S L[illegible] NOT L[illegible]
L[illegible] [illegible] S L[illegible] AND [illegible]
L[illegible] [illegible] S L[illegible], L[illegible]
L[illegible] [illegible] S L[illegible], L[illegible]
L104   6 S L103 AND L82-L103

FILE 'WPIX' ENTERED AT [illegible]